

DEEDS  
Left by a  
**GENTLEMAN**  
TO HIS  
**SONNS:**  
FOR THE  
**Improvement**  
Of Barren and Heathy LAND,  
IN  
ENGLAND and WALES.

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LONDON,

Printed by E. T. and R. H. for R. Royles, Book-  
seller to the Kings most Excellent Majesty,  
M DC LXX.

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Directions

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GENTLEMAN

TO HIS

SON

FOR THE

Improvement

OF THE

ENGLAND and WALES.

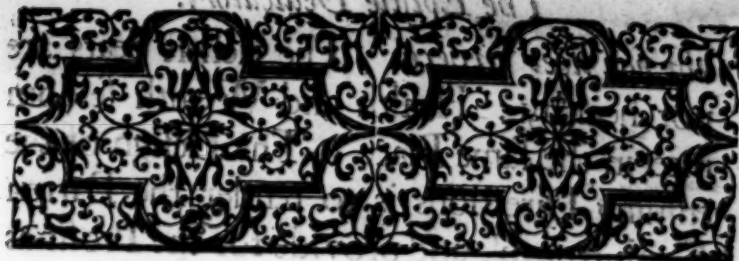
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TO HIS

Honoured Friend,

KENRICKE EYTON Esquire,

Of the *Inner Temple*.

SIR,

**H**ave (upon assurance of your  
excellent Candor) presumed to  
invite you from your more fel-  
lible Studies to the Barren  
Heath, where you will find the Air wholesome,  
though the Soyl be sterill. *Frustra eis an-  
est locus ubi periturus sum.* *Frustra sperant*  
to expand to the parched

*The Epistle Dedicatory.*

*ubi non licet vivere.* The richest Seats are not healthy : Health and Wealth seldom meet in the same Place. The Design of the ensuing Directions is to render the Barren Earth fruitful, and provide for the Profit as well as Pleasure of those whose Lot is fallen into a Heathy Ground. The wise God, who justly Cursed the Earth for Mans sake, hath yet left Means of Redemption by the Sweat of his Brow, and Labour of his Hand. Humane Industry, with the Blessing of God upon it, will fecundate the Earth, which Mans sin made unfruitful. The admirable Production of Art out of Natures dull and unweildy Womb are the Subject of many Discourses; and the new Experiments of every Day allure the Ingenious to renewed Essayes. Amongst the various Tryals of this kind, none is more profitable than this of Improving Barren Ground, and the good Husbandry to turn the parched Desert into  
to

*The Epistle Dedicatory.*

to a Fruitful Field, and to render the  
unfruitful Hills as pleasant Valleys.  
The Pleasure of this may be  
more than guessed at, when we  
consider the *Prisca Gens*, and  
Greatest Men of the first Age  
were enamoured with Agri-  
culture: When *Quintius Cincinnatus*, and  
*Marcus Curius*, after they Triumphed in the  
Field, ran hastily to their Farms, and count-  
ed themselves more Happy, and no less Ho-  
norable, with the Mattock and Spade in their  
Hand, as when they had the Sword and Scep-  
ter. The many *Encomia* of Poets, Orators,  
&c. of the Blessedness of a Rural Life, and  
pleasant Divertisements of a little well til'd  
Spot, confirm this.

Now Sir, if you shall please to remit a  
little while your graver Studies, lay by your  
*Plouden* and consult *Columella*, and shall honor  
these Directions with your experiment, you

*Illiciam prædixit,  
qui ab aratro accer-  
sebantur, ut consules  
fierent Voluptatis cau-  
sa sterile, atque aju-  
osum Papirio solum  
versabant.*

will find sensible Arguments of Profit and Pleasure, strong enough to oblige you to spend a good part of your Vacation on the Plow.

I have been emboldned to prefix your Worthy Name to this Little Book, knowing you a Person able to Protect and Vindicate both It and the Author, and one who will Pardon the little Errours that your piercing Eye shall find, and will accept kindly of the Endeavours for Publick Good, of

Hackney,

April 14<sup>th</sup>.

1670.

Sir,

*Your Obliged Friend,*

*Gabriel Reeve.*

# To my Sons.

My Sons,

**I** Leave this short ensueing treatise to you as a Legacy, if I shall not live my self, to shew you (what is therein written) by examples, which I know instruct far more, than precepts, yet precepts from a dying Father instructing of his children what he hath seen, and known, and received credible information of, from witnesses free from all exceptions, should make such impression on them, as at least to believe, their Father writ what he thought was true, and therefore suppose those things worthy to be put in practice by them which he himself would have done if it had pleased God to have granted him life, and liberty; especially seeing the matter it self which is required by him to be done is in shew so profitable, and so easie to be effected, and with so little charge, considering the great gain that is proposed by it, as that not any thing can restrain a rational man from triall thereof, but not giving credit to the relator.

The:

## The Epistle-

The whole discourse shews you how to improve Barren and Heathy Land, and how to raise more than ordinary profit thereof, by such waies, and means, as are not practised in England, but as commonly in some parts of Brabant, and Flanders, as the Husbandry of Wheat, and Rye is here. By that means you may nobly augment your estates, and will receive so much the more profit and praise, by how much with more industry and diligence you govern your affairs, and will not only be imitated but also honoured by your neighbours, when they shall see your labours prosper so far, as to convert Barren and Heathy Ground, left unhusbanded for many ages, into as commodious arrable Land, rich Pastures, and Meadows, as any be in the Kingdom. And certainly that man is wrthy of praise, and honour, who being possessor of a large and barren demans, constrains it by his labour and industry to produce extraordinary fruit, which redounds not only to his own particular profit, but also to the publick benefit.

Cato saith, it is a great shame for a man not to leave his inheritance greater to his Successors than he received it from his predecessors; and that he despiseth the liberalities of God, who by sloathfulness loseth that which his land may bring forth, as not seeming willing to reap the



## The Epistle.

the fruits which God hath offered him. Nay be threatens the crime of high treason to those that do not augment their Patrimony, so much, as the entrease surmounts the principall. It is a thing much celebrated by antiquity, and thought the noblest way, together wealth, for to employ ones Wit and Money, upon his Land, and by that means to augment his estate.

If you observe the common course of things you will find, that husbandry is the end which men of all estates in the World do point at.

For to what purpose do Souldiers, Schollars, Lawyers, Merchants, and Men of all Occupations and Trades, toyl and labour with great affection but to get Money, and with that Money when they have gotten it, to purchase Land, and to what end do they buy that Land, but to receive the fruits of it to live, and how shall one receive the fruits of it but by his own husbandry, or by a Farmers: So that it appears by degrees, that what course soever a man taketh in this World, at last he cometh to husbandry, which is the most common occupation amongst men, the most natural, and holy, being commanded by the mouth of God to our first Fathers.

There is care and diligence requisite in husbandry, as there is in all the actions of the World; and therefore as a Captain hath a Lieutenant to com-

## The Epistle.

mand his Souldiers in his absence, or for his ease, so must you provide some honest able man to whom you will commit the execution of such things as you your selves cannot do without too much labour, whereof you must often take an accompt, and confer with him as occasion shall require about your business, that nothing may be left undone, for want of providence; to such a man you must give good wages, with intent to advance your own gain, and take the more ease by reason of his honesty and knowledge.

You will find this Husbandry (after you have once had experience of it) to be very pleasing to you, and so exceeding profitable, that it will make you diligent: For no man of any art or science, except an Alchemist, ever pretended so much gain any other way as you shall see demonstrated in this ensueing treatise.

The Usurer doubles but his principall with Interest upon Interest in seven years, but by this little treatise you shall learn how to do more than treble your principall within the compass of one year.

And you shall see how an industrious man in Brabant and Flanders would bring five hundred acres of barren and heathy Land, that was not worth at the most above fifty pound a year to be worth seven thousand



thousand pound a year, in lesse time than seven years. I know no reason why the like may not be done in England, for we are under as good a Climate, as they are; Our Heathy Land, that is neither Sand, nor Loam, is as good a soyl, as their barren ground is; We have not only Dung, to enrich our Land, but also Lime, and Marle, of which they know not the use (where they sow their gainfullest Commodities mentioned in this ensueing treatise,) nor of any other Manure, but only dung. In fine, I am certain there is none of their Commodities but grow in England as they do in Brabant, and Flanders, but ours are not of the same kind as theirs, nor put to the same use, what cannot be vented at home may as well be vented from hence into Holland, as the like commodities are from Flanders thither. I will say no more of this subject in the preface, only it remains to tell you that you must not expect either Eloquence, or Method in this ensueing treatise, but a true story plainly set forth in the last Will and Testament of your Father, which he would have you execute; but before all things to be sure you lay the foundation of your husbandry, upon the blessing of Almighty God, continually imploring his Divine Aid, and assistance in all your labours; for it is God that gives the encrease, and believing this, as the quintessence and soul of husbandry,

## The Epistle.

*husbandry, Primum quærite Regnum Dei, et  
postea hæc omnia adjicientur Vobis. These things  
being briefly premised, I will leave the rest to this  
short ensuing Treatise, and commit you all with a  
Fathers blessing to the protection and providence of  
Almighty God.*

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THE

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Directions  
FOR  
IMPROVEMENT  
Of Barren and Heathy Land.

**I**T is a certain thing that the chiefest and fundamentallest point in husbandry, is to understand the nature and condition of the Lands that one would till, and sow it with such seeds as it will produce, either naturally or by art, which may turn a man to the greatest profit, and advantage.

I did think I had understood that point (when I went out of *England*) after 30 years experience in husbandry, and having improved my Land as much as any man in this Kingdom had done both by Water, and Fire.

But after I had been a while in *Brabant* and *Flanders*, I found I was to learn a new lesson in point of husbandry, for that the barrenest, hea-

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thy, and sandy Lands in those Countries did produce richer Commodities by an ordinary way of husbandry there in practice, than the strongest and richest grounds that were in both those Countries.

When I first arrived at *Dunkirk* and went to *Bridges*, which was neer forty miles, I saw as rich a Country as ever my eyes beheld, stock'd with goodly wheat and barley, and excellent meadows and pastures; The soil began to alter into worse midway, between *Bridges* and *Gaunt*, which were 24 English miles asunder, and so soon as I was past *Gaunt* in my journey towards *Antwerpe*, I did see such Land for about twenty miles together, that I cannot compare to any ground more like than the Land by *Sandy Chappel* three miles distant from *Kingston upon Thames*; a great part of the high-waies out of the road and track of Horses, and Carts, did bear heath, and such inclosures on the inside of the waies which were not kept in tillage, did either produce heath or broom, of their own natures.

The soil did not much amend untill I came within two miles of *Antwerpe*, which was thirty English miles from *Gaunt*. There I saw a goodly Marsh or feeding ground for Cattell, which was kept with a strong bank for being overflowed by the

the river of *Sceld*, under which notwithstanding there lay sluices to let in the water when they pleased, and ditches were made in the Marsh to convey it back into the River at low tides when they thought fit.

On the other side of *Antwerpe* was contribution land lying in *Brabant*, which naturally was as barren and apt to heath as any land betwixt that City and *Gaunt*: I staid not long at *Antwerpe* before I returned to *Gaunt*, and diligently reviewing of the Country as I went back, I could find no other corn to grow there, than rye, Oats and French wheat, which seemed a sufficient testimony to me of the barrenness of the soyl, which would neither bear wheat, barley, or Pease; and for that the former Grains did usually grow in *England* upon the edge of forrests and heathy grounds.

A few days after my return, I fell into discourse with a dutch Merchant then living at *Gaunt*, but had lived some years in *England*, and told him that I did not think all *Flanders* had yielded so much barren ground, as I had seen between *Gaunt*, and *Antwerpe*.

He answered me, that that Land was the richest part of all *Flanders*.

I smiled to hear him say so, thinking at first he had jested, and I replied that I believed that one acre

of Land between *Bridges* and *Dunkirk*, was worth ten acres of any land I saw there between *Gaunt* and *Antwerpe*, (excepting the Marsh land and some little straps of Meadow by the river side) for the one did bear goodly Wheat, Barley, and Pease, and was in many places naturally excellent meadow & pasture, and the other would carry no other Corn but Rye, French Wheat and oats, and would never bear any considerable grasse, but turned presently after it was laid down to heath or broom.

The Merchant told me again that their best commodities were pulled and cut before I went that way, but he would prove that that Land did yield more profit yearly than the best Land in *Flanders*, and that the Boores (for so they term their Farmers) were richer there than in any part of the Country.

I must confess at first, I thought his discourse to be some kind of riddle, but seeing him earnest in affirming that which seemed strange to me, I desired him to explain himself, how it was possible, that that Land should yield more profit than the other.

I will tell you said he the reason why it yieldeth more profit is, because that Land is naturall to bear Flax, (which is called the wealth of *Flanders*) and one acre of good Flax is worth four or five acres

of



kirk and Bridges, and after the Flax is pulled, it will presently bear a crop of turneps, which may be better worth, acre for acre, than the best corn in the Country.

After that crop is off, about *April* following you may sow the same land with Oats, and upon them Clover-grass-seed only harrowing it with bushes which will come up after the Oats are mowed, and that year yield you a very great pasture till Christmas; and the next year following you may cut that grass three times, and it will every time bear such a burthen, and so good to feed all sorts of cattel, as the best meadows in the Country do not yield the like, and will continue good four or five years together without sowing it.

After this we parted, at first I wondred much at his discourse, but much more at the ignorance or sloathfulness of our Country, which being near to *Flanders*, and many Merchants and Gentlemen travelling thither dayly; none should understand, or at least put in practice these husbandries, there being so much barren and heathy Land in *England* of very little value, which might by following their example in these husbandries be made more profitable than the best land in this Kingdom.

I after pondered what the Merchant said, all that day and the next, and then began to imagine with my self, what a huge improvement I might make of my own estate, if these things were true which he had told me, and if God almighty pleased to permit me quietly to enjoy it.

And to be further satisfied, I sent to another dutchman in the Town that had been in *England*, with whom I was grown acquainted, and desired him to inform himself from some of the Boores in the Country, whether those things the Merchant had affirmed to me were true; he returned me an answer from three or four whom he said he knew to be honest men and understanding in those husbandries; that a gammet of flax, which was their acre, but somewhat more in quantity than ours, might well produce 40 or fifty pounds worth of flax, if the land were well dunged and husbanded, and sowed with good east-Country seed, and that it pleased God to send convenient rain after it was sowed, and a seasonable time till harvest; these were no other conditions, than I conceived all other seed and grain to be subject to, either for to prove good or bad.

And for the other questions wherein I desired to be satisfied, concerning the Turneps and Clover-grass, he told me, they did concurr in all with  
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the Merchant without any other condition or limitation.

The Winter after, I did examine divers persons upon like questions, which I thought did understand that business, and found very little difference in their relations.

And in *April* following, which was the chiefest time for sowing of flax and clovergrafs-seed, I did often walk into the fields, a mile or more out of the Town, and expostulated the business with the Boores, when they were sowing of flax and clover-grafs-seed, and afterwards observed that these things did prosper very well on such ground as I conceived to be extreme barren of its own nature.

But further to inform my self more fully what an acre of flax might be worth, I bought an English Rod of flax when it was grown up, neither the best nor worst, and caused it to be pulled, watered, and dressed by it self, then valued it as flax was sold the week following in the Market at *Gant* and the seed likewise; afterwards I cast up what eight rod, which was an acre, would rise unto according to that valuation, and I found that it came to 36 pounds 14 shillings 6 pence; and though by that rate an acre did not come to forty pounds, yet it made me believe that an  
acre

acre of good flax might be worth forty pounds and more; for that which I tried was but indifferent flax.

I went presently afterwards to *Antwerpe*, and saw almost every third or fourth field by the highway-side for 25 miles together stocked with goodly flax, far beyond that which I bought to make my tryall off, whereof some was pulled, and the rest was ready to pull.

The similitude of a great quantity of land I had in *England* unto theirs in *Flanders* and *Brabant* which I saw did bear their richest commodities, and my losse in *England* both of Personal and Real estate, made me enquire after all husbandries of those Countries, of such as I conceived could any way instruct me that I might learn something or other whereby to repair my fortunes, if hereafter it pleased almighty God to give me leave to enjoy my own estate in peace again.

And being one day in company of some Merchants, it happened that discourse fell out about improvement of their barren ground, I said that I had a great quantity of barren and heathy land in *England* that I thought might easily be brought to bear flax, turneps, and clover-grass, as well as their barren lands did in *Flanders* and *Brabant*. To

*of Dutch and English Land*  
To which a Merchant answered, that he would carry me to a man within three miles of *Antwerpe* who had taken a Farm upon improvement, which was just such Heathy Land as I described mine to be, for he was about five years since to have bought it, and when he saw it all Heath he would not meddle with it, but the Farmer had so improved it already, that he had now growing upon it a Nursery of twelve acres of all sorts of trees, as Pear-trees, Apple-trees, Cherry-trees, Chestnut and Walnut-trees, Oaks, Ashes, Elms and the like, he had there also growing both Flax, Turneps, and Clover-grass, Roman-beans, and most sorts of Corn, and he had planted a hop-ground and an Orchard, he said he would tell me what husbandry he used to make such a strange conversion, and that I could not please him better than to come see it and applaud his husbandry, and he did assure me that it was worth my Journey and to be informed from him, for never a man in that Country could better instruct me than he, and I will (said he) go thither with you when you please.

I thanked him very kindly for his offer, and told him I would wait upon him thither to morrow morning, it was agreed between us, and some others that were there said, they would wait of us both to see this wonder.

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But I asked him before we parted [what that taking a Farm upon improvement was which he before did speak of, he answered, that when another had bought the Land, this man offered more rent than he could make of it at that time, to have a Lease for twenty one years, upon condition, that whatsoever four indifferent persons, whereof two to be chosen by the one and two by the other, should judge the Farm to be improved above the rent, at the end of his lease the owner was to pay so much in value to the tenant for his improving of it.

I told him it was a way of letting land I never knew of before, he answered it was an ordinary way with them of letting such barren land as men could not tell how to manage themselves.

The next day we went thither, and the first thing we saw was, his Nursery of trees which did grow and prosper very well, and he made account they would yield him ten thousand pounds before his lease was expired, and as I remember he valued them one with another but at two shillings a tree.

Then I saw a little close of Flax, which I esteemed to be about three English acres, of which Flax he told me the Merchant that brought me thither before I came from *Antwerpe*, that he had made

made one hundred and fifty pounds which was by computation fifty pound an acre.

I also saw growing there very good turneps, and excellent clovergrafs which he valued to be then worth 12 pounds an acre.

I after saw it cutting the first day of *June* one thousand six hundred fifty four being then two foot long and very thick, and went thither again the twenty ninth day of the same month, and saw the same grafs grown up, and then cutting again, being twenty inches long.

I saw it cutting again, in *August* following being then eighteen inches long, I viewed the grounds round about and found the skirts of the closes left unplowed, to be heath, and both he and the Merchant affirmed, all the rest where his flax, and clover-grafs grew, was heath but three years before.

I was very inquisitive of him to know what husbandry he used to the Land for to convert it from Heath, to bear such rich commodities.

He told me, first he broke it up with a strong Team of Horses, then plowed it cross afterwards tore of the Heath with a great Harrow, then gathered it up and burnt it, and laid about twenty loads of dung upon an acre, and spread it upon the land, then plowed it again, and sowed the

## Directions for Improbement

first crop with Rye, the next with Oats, and when he had harrowed his oats, he sowed clover-grass-seed upon them, which he harrowed with a bundle of bushes, under his harrow, and that came after the oats was of, to be a very good pasture before *Michaelmas*, and this third year he had mowed the clover-grass thrice as I had seen, and it would come to a very good pasture quickly to feed in *Christmas*, and the same he thought he should do for three years more, but afterwards the ground would turn to an ordinary grass, he said he used his ground where his flax grew as his other; but first again about half the quantity of dung he did at first, and then sowed it with flax, and upon the flax, clover-grass-seed, as he had done before upon the oats: his Roman beans, his hops and orchard thrived very well, and all with the same quantity of dung proportionably used, for there they know no other Manure.

I asked him how he could make twelve pound of an acre of this clover-grass, He said either by feeding Cattel, or keeping it green, or laying it for seed, after the first but, for an acre of it being made part into Hay, and the rest fed green, would keep four Kine Winter and Summer, and an acre laid for seed might carry five bushels, which valued at six pence a pound came to eight pound sterling besides



besides the first and second cuts of grass and hay, and the after-pasture. He said the best time for sowing flax, and clover-grass-seeds was about the beginning of April presently after a shower of rain; some continue sowing of flax untill the end of May, and some sow after, though I know no cause to commend their slowness in sowing of it so late.

I was not very inquisitive after his other Commodities, I saw by his Turneps which he sowed upon his Heathy Land at his first breaking up, that he differed in that point from all other Husbandmen in those Countries, who sowed them immediately after Rye, or Flax, but those things will I leave to every ones experience to provide therein as he thinks best according to his own observation. Now what I had observed here, and there on Gault and Antelope, my reason had made me grounded upon some former experience that there was no land that naturally bore Heaths being either of a sandy or loamy mould, but might by the husbandry in it, which I prefer before to their husbandry in the land, be made to add some thing of lime, or chalk in its proportion as shall be hereafter expressed, may be made better than the best land that is now in England, and I doubt not if it be considered with reason can deny, but that land is best which will bring forth such productions as will yield most

money to make one wealthy, and rich.

For though Wealth, and riches, may consist either in cattel, corn household-stuff, or plate, jewels, yet when those things are valued, we commonly say they are worth so much money; So *Regina pecunia*, money is the Queen that commands all.

Now if the same quantity of acres of poor Heathy land, by producing flax, turneps, and clover-grass will yield more money than the rich Land which beareth Wheat, Barley, Meadow, and good pasture; then by consequence it followeth that the poor land is better than the rich.

And I suppose that they find by experience in *Flanders*, that their rich Land will naturally bear those Commodities, otherwise they could not be ignorant that they do so far exceed their best Corn, and Meadows, in matter of profit, which appeareth clearly by their own valuations, for they value an acre of flax may be worth forty or fifty pounds; an acre of Turneps worth eight or ten pounds, an acre of clover-grass worth 10 or 12 pounds; whereas they value their best Barley may be worth ten or twelve pounds an acre, their best Wheat may be worth five or six pounds an acre, and their best Meadow worth four or five pounds an acre.

Now if you compare the value of these commodities



dities together, supposing the rich Land will not bear the other which are the richer commodities so well as the poor, you must needs conclude the Poorer Land to be the better.

And it is a strong argument to me, that their rich Land will not bear those rich commodities so naturally as the Heathy and Sandy Land doth, for though I went often between *Bridges* and *Dunkirk*, which is thirty nine miles being the richest Land in *Flanders*, and where there is goodly Wheat, Barley, and Meadows as ever my eyes beheld, yet I never saw in all that ground to my remembrance one acre of flax, turneps or clover-grass; whereas on the contrary between *Caum* and *Antwerpe* which is thirty miles, and the poorest Land in all the Country, much like *Sandy Chaptel* in *Surrey*, or some part of the Heathy Land in *Windsor Forrest*, I have seen many hundreds of acres of goodly flax, turneps, and clover-grass, close by the high-way side, and their corn there not any thing but Rye, French Wheat, and Oats.

It is not only dung that cause the fertility in those barren Heathy and Sandy Lands, for to bring forth those rich commodities, but partly the nature of those seeds which do delight to grow rather in a light and gentle Land, than in one too stiff and heavy, though it is true, that dung is of that

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vertic, that it heats, fattens, sweetens and reclaims all barren grounds, and unslack't Lime and Marle are of as great an efficacy, being proportionably tempered with earth and ashes, and of longer continuance to enrich Land, as I will shew hereafter.

But because some will say that the burning of the turf, (which we call devonshireing,) will make the ground the worse after three years, I do most confidently affirm upon my own experience, that with the addition of dung, or lime, or marle, in fit proportions, that there is no such husbandry in the world perfectly to prepare any Heathy land, and make it nourish, receive, and ripen seeds.

For the earth is as it were renewed by the fire having no other roots in the entrails of it, produceth nothing for many years but what one sows upon it, and shall remain vigorous enough to serve as long as one of knowledge and understanding will desire it.

And therefore I shall advise you to prefer this husbandry upon your Heathy land before any other, though they have no other manner to mend their land but dung, in the barren and heathy land in *Flanders & Brabant*, yet they have a very fine way in *Brabant* to raise a great quantity of dung, the practice whereof may much advance the improvement

ment of St. *Leonards* Forrest: They that keep sheep there upon the Heaths, houze them every night, and in the summer at noon, first having laid three or four inches of sand at the bottom of the floor whereon they lodge their sheep for a night or two, which tread their dung and pisse into the sand, and so dayly they use more sand to be used in the same manner, untill the quantity be grown so great, that the sheep cannot conveniently go in or out.

Then they cast that out of the house, and put in more sand, and so proceed throughout the year, and by this means three or four hundred sheep will raise a thousand loads of dung in a year, and eight hundred sheep, two thousand loads, which allowing twenty loads to an acre, will dung an hundred acres yearly, and this dung by experience doth mightily improve such Heathy land as St. *Leonards* is.

Besides there is marle in most parts of the forrests, I account any Mine that is free from stones, and lyeth so thick as it is worth the digging, and near and convenient to carry to your land, and of a clammy substance when it is wet, though it seem only Clay, or Loam, yet to be Marle, and very good Manure for sandy and heathy land, be it of what colour it will, as either gray, yellow, or blue, and

forty loads of it laid upon an acre in summer and presently spread, and so let lie all winter, to incorporate with the earth, then devonshired the next March, and spread upon the Land and sowed, will mightily improve it.

I did use six acres thus, that was nothing but heath, and had two crops of Corn from it and the third year it came of it self to be as good grass as ever I saw grow in any Meadow in England.

I saw another great improvement in Clement Stokes his Farm adjoining to the Forrest, he had Land that he let out two years together for twelve pence an acre, at last he devonshired it, and cauled his hills before they were burnt to be set a just rod square one from another, and when they were burnt, he put a peck of unslacked lime into every Hill, which being eightscore Hills upon an acre took up just a load of lime which was forty bushels, this lime being slacked in the Hills with the first rain was mingled together with the ashes, and then spred upon the land, and after sowed with wheat, and brought as good as any was in the Country, brought next year a very good crop of Oats, and the year following came to as good Grass as any he had to his Farm.

This

This I hold to be the cheapeſt husbandry, because four or five load of Fernes of which there is store in the Forrest being cut from the beginning of *July* to the middle of *August*, will burn off twelve loads of chalk to lime, and though your chalk cost dear the bringing thither, yet the lime will not stand you in twelve shillings a load, and by this way you save much carriage, and so by consequence may compass to Manure yearly much more Land.

As for example, you carry but one load of lime to your land, whereas by the other waies you must carry twenty loads of dung, and forty loads of Marle; so as by the lime, if that will do as well, you may lime twenty acres as soon as you can dung one acre, and forty acres for one with Marle.

But I advise you to make triall your selves of all these severall husbandries, and then to follow that which you find cheapeſt and best. I have set down at large how I came first to know these husbandries, and how I was satisfied in the particulars.

I have also set down three severall waies to improve your land, now I will lay down the charge of each in severallty, then cast up the profit from one acre to five and twenty acres, then to fifty, and

## Directions for Improvement

So to an hundred acres, by which it shall appear, that by an ordinary way of husbandry according to the value which they make of like commodities in *Flanders*, how that by improving a hundred acres of Heathy land every year, as namely. of *St. Leonards Forreſt*, and ſowing the ſeeds of Flax, Turneps, and Clover-graſs; you may in 5 years improve five hundred acres to be worth above ſeven thouſand pounds a year, the particular Charge of an acre of Flax is as followeth.

*First the devonſhireing of an acre* 1. l.

*A Load of Lime to put into the Hills* 12 s.

*The Plowing and Harrowing of an acre* 6 s.

*Three buſhels of Flax-ſeed at 13 s. 4 d. the buſhel* 2 l.

*The Weeding of an acre* 1 s.

*Pulling and Binding an acre* 10 s.

*Graſſing the ſeed from the Flax* 6 s.

*Watering, Drying, ſwingling, and Beating the Flax of 9 hundred Weight upon an acre* 4 l. 10 s.

*This is the uttermoſt charge that I could learn.*

*So the whole cometh to* 9 l. 5 s.

*Nine hundred pound Weight of flax upon an acre at 8 ſtivers the pound, which was an ordinary price in Gaunt when I was there, together with the ſeed, valued to be worth* 40 l.

Now



Now if you deduct 15 s. an acre more towards charges, or losses the accompt being already 10 l. an acre, short of the value of their best flax, yet remains above all charges cleer for an acre 750 l.

By the same account you will be at 500 l. charge for 50 acres, and then receive at 40 l. an acre 2000. but cleer above all charges but 1500 l.

The like accompt of 1000 l. charge for 100 acres, you receive upon the accompt of 40 l. an acre 4000 l. but cleer above all charges 3000 l.

This thousand pound charge for 100 acres is only supposed in case you lay out all the charge before you receive any money for part of your flax, but before you are out 700 l. some money will come in for flax continually, so as indeed you shall not go out above seven hundred pound at all in stock, and after the first years profit is come in, you cannot accompt that you are out any thing from your purse, because you have your full stock again, and three thousand pound more.

But this is not all the profit you are to expect from your hundred acres the first year, for after the flax is pulled which will be either in *July* or *August*, the same land may be sowed with turneps & prove according to the *Flanders* accompt worth eight pound an acre over and above all charges, so twenty five acres cometh to two hundred pounds, fifty

fifty acres to four hundred pounds and a hundred acres to eight hundred pounds.

They sow in *Flanders* but two pound and a half of Turnep-seed upon an acre, which was worth when I was there, but twelve pence, and plow it once after the flax is pulled, they harrow it, and weed it if there be cause, and that is all their charge concerning that business.

Both these crops are sowed, ripe and ready to be pulled within eight months; that is between the beginning of *April* and the end of *November*, so the profit of one hundred acres the first year cometh to besides all charges and this account unto 3800 l.

And the hundred pounds allowed for charges may very well come into your purse again within the other four months.

When the turneps are pulled I would have the same hundred acres made ready again to be sowed with Clover-grass-seed alone, about the beginning of *April* then next following (therein altering the custom of *Brabant* and *Flanders*, which is to sow it immediately either with or after corn, for I found by experience in *Hereford-shire*, that it will thrive much better the first year and turn to more profit alone, than a crop of Oats, and it sowed together will do.

The



The charge of an acre is first plowing and harrowing about 5 s.

Ten pound of seed as it cost me at Antwerpe 1645 but 6 d. a pound 5 s.

Cutting the grasse twice making the Hay and threshing out the seed about 1 l. 10 s.

So the whole charge is 2 l.

### **The second years Profit.**

Which being deducted, there remains cleere for one acre according to the Brabant and Flanders accompt 10 l. which for 25 acres cometh to 250 l. for 50 acres to 500 l. and for 100 acres to 1000 l. Then 100 acres more must be deconsbired, and sowed with flax, and turneps as is before expressed which with Gods Blessing may yield the like profit 3800 l. whereto the 100 l. abovementioned for clover-grasse being added, the whole profit of the second years from 200 acres amounteth to 4800 l.

### **The third years Profit.**

Then the last 100 acres sowed with flax, and turneps, must be sowed as before with clover-grasse-seed, which according to the former accompt coming to 1000 l. and 100 acres more deconsbired as formerly,

## Directions for Improvement

merly, and sowed with flax and turneps yielding the like profit of 3800 l. as is before specified, adding thereunto the 200 acres of clover-grass, the whole profit of the third year is 5800 l.

### The fourth years Profit.

That the 100 acres sowed before with flax, and turneps, must be sowed as formerly with clover-grass-seeds, which yielding 1000 l. according to the former accompts, and another hundred acres devonshired as formerly and sowed with flax and turneps, and yielding like profit of 3800 l. and adding thereunto the 300 acres formerly sowed with clover-grass-seed makes the whole profit of the fourth year 6800 l.

### The fifth years Profit.

Then the last 100 acres sowed with flax and turneps must be sowed as before with clover-grass-seed, which yielding like profit of 1000 l. and another 100 acres devonshired as formerly and sowed with flax and turneps, yielding the like profit of 3800 l. thereto adding the 400 acres formerly sowed with clover-grass-seed, makes the whole profit of the fifth year 7800 l.

Thus

Thus have I plainly shewed what I promised in my Preface, that was, how an industrious man in *Brabant* and *Flanders* would convert 500 acres of barren and heathy Land from little value, in 5 years to be worth above 7000 *l.* a year.

You see you have better means to mend your Land than they have, your Land lieth in a manner under the same Climate, for *Chicester* and *Mecklin* are in one degree, the soil is much alike as I have shewed; you may have as good a vent for your commodities as they have for theirs, if you please, and therefore I do not know what reason can hinder you from putting these things in practice, you may continue this yearly profit of 7800 *l.* a year upon this 500 acres, if you will, by liming, dunging, or marling, and devonshireing: again the first 100 acres laid down with clover-grass, and sowing it with flax and turneps, as before, and so go round with every hundred acres as formerly in its course, but having great store of barren and heathy ground, you were better improve that, and let the clover-grass continue as long as it will.

And if after 5 years continuance it turneth to a mingled grass, yet that will be as good as most meadows and pastures that I know in *England*, for it turns commonly from a red hony-suckle to a

E

white,

white, which we repute the sweetest grass, although it doth not carry the greater burthen, and I am perswaded it will continue longer, if it be kept for seed, and cut but twice, whereas they commonly cut it thrice a year in *Flanders*, alwaies in the Sap, which will kill Fern.

Now I will shew you how they vent those Commodities, that you may learn the better how to vent yours.

First they make great store of Linnen themselves, and sell it most for *London*; what they make not in Cloth they have a Market of every Thursday at a place called *S. Nicholas*, almost midway between *Antwerpe* and *Gannt*, whither Merchants come of purpose to buy it, and send it into *Holland*, and there sell it at dear rates.

I met with a Linnen-Draper of *London* when I was at *Gannt*, and questioning him what vent there was for flax at *London*, he told me that before these troublesome times, if I had had a very great quantity he could have helpt me to chapmen to have bought it off at dearer rates at *London*, than usually they sold it at in *Flanders*, for he said he did believe there was no less than 100000 *l.* worth of flax brought yearly into *England* from forreign parts, a great part whereof to his knowledge, was sent from *London* into *Lancashire*, there made into Cloth,

Cloth, and afterwards brought back in cloth and sold in *London*, and if times grew peaceable again in *England*, he told me I need not doubt the venting of more flax at *London* than ever I would have to sell. And two honest English Merchants of my acquaintance did assure me, that if I could not sell my flax at *London* to my content, they would transport it for me into *Holland*, where I might sell it dearer than they sold their flax in *Flanders*; for Merchants usually sent for flax out of *Flanders*, and sold it again in *Holland* at dearer rates than they paid for it there.

But if you find that these commodities thrive with you, & you grow rich by them, I would advise you to send for some workmen out of *Flanders* that understand the Manufacture of linnen-cloth, and make your own flax in linnen-cloth, you cannot chuse but gain by it exceedingly, when you are aforehand with the world, if they live by it who fetch it first from *London* into *Lancashire* by land being made in cloth, recarry it up; and besides, you shall do a charitable deed, by bringing in that Manufacture into the Kingdom, for it keeps a very great number of poor women and children at work in *Flanders* and *Holland*, that otherwise would not have means to live; So by this way you should be sure to vent your flax, and withall procure

cure a publick benefit to the Kingdom.

The Husbandry of Turneps is as common between *Gaunt* and *Antwerpe* as that of flax, for as there is more flax sowed there, than of any other grain or corn, so commonly after the flax is pulled, immediately they sow Turneps, and presently after, their Rye, what they do not eat themselves, they give unto their cattel, they will feed Oxen, and Kine, as fat as Hay and Oats, the roots being clean washed, and then roots and leaves being put into a trough, and there stamped together with a spitter, and after boyled in water and given to Kine, will make them abound with milk, yet grow so fat withall, that you would wonder at it.

The only difficulty is to make your cattel eat them at first, but breed them up by hand, as they do there: others do the same already; in many parts in *England* they will take turneps and eat, or any other thing that you will give them.

To encourage you the more to sow turneps, I will demonstrate to you what an acre of them transplanted may be worth by calculation, as they are sold in *London*. They commonly there sell four or five turneps in a bunch for a peny. A rod square being sixteen foot and a half may bear 1089 turneps, being set at half a foot distance the one from the other.

Now



Now suppose that 1000 cometh to good, and five sold for a peny; then a rod of them amounts to 16 s. 8 d. and an acre of them being eightscore rod by the same account comes to above 30 l. and therefore certainly 100 acres sowed, may very well be valued at 8 l. an acre one with another, when you have brought your Cattel to eat them as theirs do.

I told you before how in *Brabant* and *Flanders* they made twelve pound an acre of their Clover-grass, either by feeding Cattel, keeping Kine, or by the seed, which commonly encreasing to 5 bushels upon an acre, was worth 8 l. when it was sold but at 6 d. a pound, but being sold for 2 s. a pound, (which price I my self now paid for it) the value of the seed quadruples from 8 l. to 32 l. an acre, and the man that sold me seed this year for 2 s. a pound, desires to buy all that I can spare the next year at the same price, if you get but into the best kind of those they use in *Flanders*:

For when your neighbours see your labours thrive and prosper, so far as to convert your land which bore nothing but Heath for many ages, first into excellent flax, then into such delicate turneps as they never saw before, or tasted, and to end with such Clover-grass, as they will admire, when they once see your Crops, and somewhat under-stand!

derstand that you do reap some benefit by them, they will come to you as to an Oracle to ask your Counsell, and be instructed, and desire it from you as a favour at first, to buy your seed at any reasonable price.

But if you find that you have more seed of flax and turneps, (if you will let them grow to seed) than you can vent, you must then let up either a Water-mill, or Wind-mill, as they do in *Flanders*, and make them into Oyl, both which seeds make good Oyl, which you may be sure to sell in *London* at good rates.

And for your Clover-grass-seed, if you find you cannot sell it to your content, you may chuse whether you will let it grow to seed or not, and if you do not let it grow to seed, you may cut it once more in a year than otherwise you could do.

You must change your flax-seed, though never so good at first, after four years, the other seeds do not so much require it.

I doubt not but these things will seem as strange to you at first, as they did to me, and therefore I desire you nothing, but to try what I propose, upon such profitable terms, as no man that is well in his wits, but will venture at them, being laid down so plainly to you, as a child may understand them.

You may observe that flax, turneps, and clover-grass

grafs already grow in *England*, but there is a much difference between what groweth there and here, as is between the same thing which groweth in a garden, and that which groweth wild in the fields.

To prevent what may be strange or troublesome to you at first, for want of knowledge, I would advise you to send to *Tom* or *Robin* to *Gannt*, where, by means of some of their old acquaintance there, they may provide you a servant who understands these severall Husbandries, as well as any of ours do the Husbandry in getting Corn, and by observing of his practice, you your selves, or whom you will appoint, may be sufficiently instructed in a year or two; so far as to command such things to be done by others, as are not fit and necessary to be done by you your selves.

Besides the excessive profit you will reap by sowing those Commodities, imagine what a pleasure it will be to your eyes and scent, to see the *Russet Heath* turned into *Greenest Grasse*, which doth produce most sweet and pleasant smelling *Hony-suckles*, and what praise and reputation you will gain by your examples, first introducing that into your Country, which being followed by others, must needs redound unto the generall benefit of the whole Kingdom.

I do

## Directions for Improvement

I do by my Will Command you for to execute no more, than what I would my self to morrow put in practice if I had liberty.

You should then learn these things I have set down by examples, which now I am enforced to leave you as a Fathers Precepts, and with a Fathers blessing to you all, desiring God Almighty for to guide you, and direct you in all your Actions, I will leave you to His Divine Protection and Providence.

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### To make Rushie Ground bear Grass.

**B**reak the Rushie ground, and rake the roots and the Rushes together, and burn them or carry them away, then spread upon that Ground turf, ashes, or pigeon dung, chalk, or lime, according to your ground; try of every one of these upon a little plot of your ground, you may use other ashes, marle, or dung for experiences; and that which you find doth kill the Rushes and the other Weeds best, use it: you are to make gutters, or drayns

drayns to carry away the water from the ground, you may destroy Rushes, or Fern, if you will but cut, and mow them down, in the beginning of June, and so use to do it two or three years in June.

### For Planting and Solwing walnuts.

In the season when they are full ripe, on the trees, a few days before they will fall, as near as can be guessed, let them be gathered or beaten of; and in the green husk, or without it, put them into good ordinary earth, in a barrel, or basket: so let them continue untill the beginning of March following; as soon as that month begins, get as much warm milk from the Cows, as will steep them, twenty four hours after they are steeped, set them in ground well digged, and judged naturall for such fruit, with their little end, or their prickled sharp end upwards about three or four inches deep in the earth, and not one of twenty will fail, as hath appeared by experience.

This may make dry Walnuts also prove trees. The Nuts used as above said, as far as may be: Set them neer one foot asunder, and in a right line, to weed them, the Walnut breeds good timber,

F

good

...trunks for improvement, as  
good, thick, good smell, good fruit. At four  
years growth transplant them.

Note that Clover-grass-seed will be ripe about  
a Month after it appears in the husk.

...of the seed and ...

In the season when they are full ripe, on the  
trees a few days before they will fall, and most as  
can be guessed, let them be gathered before they  
and in the green husk, or without it, but then in  
to good ordinary cider in a barrel, or pack  
to let them come out of the husk being good  
**FINIS**

following; also as that woman begins to  
much warm milk from the Cows as will keep them  
twenty four hours after they are squeezed; let them  
in ground well digged, and indged natural for  
each fruit, with their little end or their pointed  
sharp end upwards, about three or four in-  
ches deep in the earth, and not one or twenty  
will fail, as hath appeared by experience.

This may make dry Valerians and prove sweet  
The Nuts used as above said, as far as may be. Set  
them near one foot asunder, and in a night  
to weed them, the Walnut breed good timber.

good





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G

O

L

Pri

# Directions 3.

Left by a

3

## GENTLEMAN

*Gabriell* TO HIS *Reeves,*

## S O N N S:

F O R   T H E

## Improvement

Of Barren and Heathy L A N D,

I N

E N G L A N D and W A L E S.

---

L O N D O N,

Printed by E. T. and R. H. for R. Royston, Book-  
seller to the Kings most Excellent Majesty,  
M D C LXX.

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Directions

GENTLEMAN

S O N S

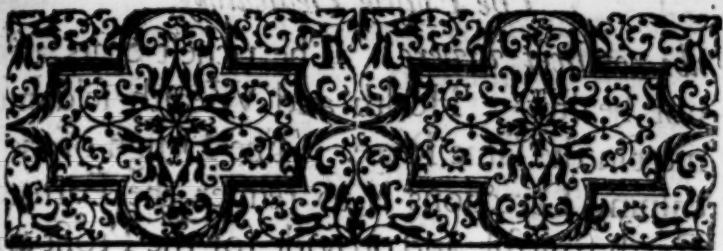
Improvement

OF BATH AND

ENGLAND AND

LONDON

MDC LXX



TO HIS  
Honoured Friend,  
KENRICKE EYTON Esquire,  
Of the *Inner Temple*.

SIR,

**H**ave (upon assurance of your  
excellent Candor) presumed to  
invite you from your more fer-  
tile Studies to the Barren  
Heath, where you will find the Air wholesome,  
though the Soyl be sterill. *Frustra salubris*  
*est locus, ubi periturus fame: Frustra fertilis*  
A<sup>2</sup>

*The Epistle Dedicatory.*

*ubi non licet vivere.* The richest Seats are not healthy : Health and Wealth seldom meet in the same Place. The Design of the ensuing Directions is to render the Barren Earth fruitful, and provide for the Profit as well as Pleasure of those whose Lot is fallen into a Heathy Ground. The wise God, who justly Cursed the Earth for Mans sake, hath yet left Means of Redemption by the Sweat of his Brow, and Labour of his Hand. Humane Industry, with the Blessing of God upon it, will fecundate the Earth, which Mans sin made unfruitful. The admirable Production of Art out of Natures dull and unweildy Womb are the Subject of many Discourses; and the new Experiments of every Day allure the Ingenious to renewed Essayes. Amongst the various Tryals of this kind none is more profitable than this of improving Barren Ground, and the good Husbandry to turn the parched Defart



## The Epistle Dedicatory.

are to a Fruitful Field, and to render the  
om unfruitful Hills as pleasant Valleys.

The Pleasure of this may be  
ren more than guessed at, when we  
t as consider the *Prisca Gens*, and  
llen Greatest Men of the first Age  
od, were enamoured with Agri-  
ake, culture: When *Quintius Cincinnatus*, and  
the *Marcus Curius*, after they Triumphed in the  
and Field, ran hastily to their Farms, and coun-  
God ted themselves more Happy, and no less Ho-  
norable, with the Mattock and Spade in their  
able Hand, as when they had the Sword and Scep-  
and ter. The many *Encomia* of Poets, Orators,  
any &c. of the Blessedness of a Rural Life, and  
very pleasant Divertisements of a little well til'd  
eyes Spot, confirm this.

ind Now Sir, if you shall please to remit a  
Im little while your graver Studies, lay by your  
good *Plouden* and consult *Columella*, and shall honor  
t in these Directions with your experiment, you

*Ille etiam prædivites,  
qui ab aratro accer-  
sebantur, ut consules  
fierent Voluptatis cau-  
sa sterile atque estu-  
osum Pupinæ solum  
versabant.*

*The Epistle Dedicatory.*

will find sensible Arguments of Profit and Pleasure, strong enough to oblige you to spend a good part of your Vacation on the Plow.

I have been emboldned to prefix your Worthy Name to this Little Book, knowing you a Person able to Protect and Vindicate both It and the Author, and one who will Pardon the little Errours that your piercing Eye shall find, and will accept kindly of the Endeavours for Publick Good, of

Hackney,

April 14<sup>th</sup>.  
1670.

Sir,

*Your Obliged Friend,*

*Gabriel Reeve.*

# To my Sons.

My Sons,

**I** Leave this short ensueing treatise to you as a Legacy, if I shall not live my self, to shew you (what is therein written) by examples, which I know instruct far more, than precepts, yet precepts from a dying Father instructing of his children what he hath seen, and known, and received credible information of, from witnesses free from all exceptions, should make such impression on them, as at least to believe, their Father writ what he thought was true, and therefore suppose those things worthy to be put in practice by them which he himself would have done if it had pleased God to have granted him life, and liberty; especially seeing the matter it self which is required by him to be done is in shew so profitable, and so easie to be effected, and with so little charge, considering the great gain that is proposed by it, as that not any thing can restrain a rational man from triall thereof, but not giving credit to the relator.

The

## The Epistle-

The whole discourse shews you how to improve  
Barren and Heathy Land, and how to raise more  
than ordinary profit thereof, by such waies, and  
means, as are not practised in England, but as  
commonly in some parts of Brabant, and Flanders,  
as the Husbandry of Wheat, and Rye is here. By  
that means you may nobly augment your estates,  
and will receive so much the more profit and praise  
by how much with more industry and diligence you  
govern your affairs, and will not only be imita-  
ted but also honoured by your neighbours, when they  
shall see your labours prosper so far, as to convert  
Barren and Heathy Ground, left unhusbanded for  
many ages, into as commodious arable Land, rich  
Pastures, and Meadows, as any be in the Kingdom.  
And certainly that man is worthy of praise, and  
honour, who being possessor of a large and barren  
demeans, constrains it by his labour and industry to  
produce extraordinary fruit, which redounds not  
only to his own particular profit, but also to the  
public benefit.

Cato saith, it is a great shame for a man  
to leave his inheritance greater to his Successor  
than he received it from his predecessors; and  
he despiseth the liberalities of God, who  
slothfulness loseth that which his  
may bring forth, as not seeming willing to

## The Epistle.

rowe the fruits which God hath offered him. Nay be  
more threatens the crime of high treason to those that do  
and not augment their Patrimony, so much, as the  
ut as treasure surmounts the principall. It is a thing  
nders much celebrated by antiquity, and thought the noblest  
e. By pay, together wealth, for to employ ones Wit and  
tates Money, upon his Land, and by that means to aug-  
raise ment his estate.

re you If you observe the common course of things you  
imits will find, that husbandry is the end which men of  
the all estates in the World do point at.

conver For to what purpose do Souldiers, Schollars, Law-  
ed fers, Merchants, and Men of all Occupations and  
l, rades, toyl and labour with great affection but to  
gdon get Money, and with that Money when they have  
e, gotten it, to purchase Land, and to what end do  
barn they buy that Land, but to receive the fruits of it  
ustry to live, and how shall one receive the fruits of it  
not out by his own husbandry, or by a Farmers: So that  
he put appears by degrees, that what course soever a  
man taketh in this World, at last he cometh to hus-  
bandry, which is the most common occupation a-  
ccess amongst men, the most natural, and holy, being com-  
nd mand by the mouth of God to our first Fathers.

who There is care and diligence requisite in husbandry,  
as there is in all the actions of the World; and  
to therefore as a Captain hath a Lieutenent to com-  
a mand

## The Epistle.

mand his Souldiers in his absence, or for his ease, so must you provide some honest able man to whom you will commit the execution of such things as you your selves cannot do without too much labour, whereof you must often take an accompt, and confer with him as occasion shall require about your business, that nothing may be left undone, for want of providence; to such a man you must give good wages, with intent to advance your own gain, and take the more ease by reason of his honesty and knowledge.

You will find this Husbandry (after you have once had experience of it) to be very pleasing to you, and so exceeding profitable, that it will make you diligent: For no man of any art or science except an Alchemist, ever pretended so much gain by any other way as you shall see demonstrated in the ensuing treatise.

The Usurer doubles but his principall with interest upon Interest in seven years, but by this little treatise you shall learn how to do more than treble your principall within the compass of a year.

And you shall see how an industrious man in Brabant and Flanders would bring five hundred acres of barren and heathy Land, that was not worth the most above fifty pound a year to be worth seven thousand



## The Epistle.

ease, thousand pound a year, in lesse time than seven  
years. I know no reason why the like may not be  
done in England, for we are under as good a Climate,  
as they are; Our Heathy Land that is neither  
Sand, nor Loam, is as good a soyl, as their bar-  
ren ground is; We have not only Dung to enrich our  
Land, but also Lime, and Marle, of which they  
know not the use (where they sow their gainfullest  
Commodities mentioned in this ensueing treatise,)  
nor of any other Manure, but only dung. In fine,  
I am certain there is none of their Commodities  
but grow in England as they do in Brabant, and  
Flanders, but ours are not of the same kind as theirs,  
nor put to the same use, what cannot be vented  
at home may as well be vented from hence into Hol-  
land, as the like commodities are from Flanders  
thither. I will say no more of this subject in the  
preface, only it remains to tell you that you must not  
expect either Eloquence, or Method in this ensueing  
treatise, but a true story plainly set forth in the  
last Will and Testament of your Father, which he  
would have you execute; but before all things to  
be sure you lay the foundation of your husbandry,  
upon the blessing of Almighty God, continually im-  
plored his Divine Aid, and assistance in all your  
labours; for it is God that gives the encrease,  
and believing this, as the quintessence and soul of  
husbandry,

## The Epistle.

husbandry, Primum quærite Regnum Dei, et  
postea hæc omnia adjicientur Vobis. These things  
being briefly premised, I will leave the rest to this  
short ensueing Treatise, and commit you all with  
Fathers blessing to the protection and providence of  
Almighty God.

THE

# Directions

FOR

## IMPROVEMENT

Of Barren and Heathy Land.

**I**T is a certain thing that the chiefeft and fundamentallft point in husbandry, is to understand the nature and condition of the Lands that one would till, and sow it with such seeds as it will produce, either naturally or by art, which may turn a man to the greatest profit, and advantage.

I did think I had understood that point (when I went out of *England*) after 30 years experience in husbandry, and having improved my Land as much as any man in this Kingdom had done both by Water, and Fire.

But after I had been a while in *Brabant* and *Flanders*, I found I was to learn a new lesson in point of husbandry, for that the barrenest, hea-

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thy, and sandy Lands in those Countries did produce richer Commodities by an ordinary way of husbandry there in practice, than the strongest and richest grounds that were in both those Countries.

When I first arrived at *Dunkirk* and went to *Bridges*, which was neer forty miles, I saw as rich a Country as ever my eyes beheld, stock't with goodly wheat and barley, and excellent meadows and pastures; The soil began to alter into worse midway, between *Bridges* and *Gannt*, which were 24 English miles asunder, and so soon as I was past *Gannt* in my journey towards *Antwerpe*, I did see such Land for about twenty miles together, that I cannot compare to any ground more like than the Land by *Sandy Chappel* three miles distant from *Kingston upon Thames*, a great part of the high-waies out of the road and track of Horses and Carts, did bear heath, and such inclosures on the inside of the waies which were not kept in tillage, did either produce heath or broom, or their own natures.

The soil did not much amend untill I came within two miles of *Antwerpe*, which was three English miles from *Gannt*. There I saw a goodly Marsh or feeding ground for Cattel, which was kept with a strong bank for being overflowed by

## of Barren and heathy Land.

the river of *Sceld*, under which notwithstanding there lay sluices to let in the water when they pleased, and ditches were made in the Marsh to convey it back into the River at low tides when they thought fit.

On the other side of *Antwerpe* was contribution land lying in *Brabant*, which naturally was as barren and apt to heath as any land betwixt that City and *Gaunt*: I staid not long at *Antwerpe* before I returned to *Gaunt*, and diligently reviewing of the Country as I went back, I could find no other corn to grow there, than rye, Oats and French wheat, which seemed a sufficient testimony to me of the barrenness of the soyl, which would neither bear wheat, barley, or Pease, and for that the former Grains did usually grow in *England* upon the edge of forrests and heathy grounds.

A few days after my return, I fell into discourse with a dutch Merchant then living at *Gaunt*, but had lived some years in *England*, and told him that I did not think all *Flanders* had yielded so much barren ground, as I had seen between *Gaunt*, and *Antwerpe*.

He answered me, that that Land was the richest part of all *Flanders*.

I smiled to hear him say so, thinking at first he had jested, and I replied that I believed that one acre

of Land between *Bridges* and *Dunkirk*, was worth ten acres of any land I saw there between *Gaunt* and *Antwerpe*; (excepting the Marsh land and some little straps of Meadow by the river side) for the one did bear goodly Wheat, Barley, and Pease, and was in many places naturally excellent meadow & pasture, and the other would carry no other Corn but Rye, French Wheat and oats, and would never bear any considerable grass, but turned presently after it was laid down to heath or broom.

The Merchant told me again that their best commodities were pull'd and cut before I went that way, but he would prove that that Land did yield more profit yearly than the best Land in *Flanders*, and that the Boores (for so they term their Farmers) were richer there than in any part of the Country.

I must confess at first, I thought his discourse to be some kind of riddle, but seeing him earnest in affirming that which seemed strange to me, I desired him to explain himself, how it was possible that that Land should yield more profit than the other.

I will tell you said he the reason; why it yielded more profit is, because that Land is naturall to bear Flax, (which is called the wealth of *Flanders*) and one acre of good Flax is worth four or five acres

of the best corn which groweth between *Dun-*  
*kirk* and *Bridges*, and after the Flax is pulled,  
it will presently bear a crop of turneps, which may  
be better worth, acre for acre, than the best corn  
in the Country.

After that crop is off, about *April* following  
you may sow the same land with Oats, and  
upon them Clover-grass-seed only; harrowing  
it with bushes which will come up after the Oats  
are mowed, and that year yield you a very great  
pasture till Christmas; and the next year follow-  
ing you may cut that grass three times, and it will  
every time bear such a burthen, and so good to  
feed all sorts of cattel, as the best meadows in  
the Country do not yield the like, and will con-  
tinue good four or five years together without  
sowing it.

After this we parted, at first I wondered much  
at his discourse, but much more at the ignorance  
or sloathfulness of our Country, which being near  
to *Flanders*; and many Merchants and Gentlemen  
travelling thither dayly; none should under-  
stand, or at least put in practice these hus-  
bandries, there being so much barren and heathy  
land in *England* of very little value, which might  
by following their example in these husbandries,  
be made more profitable than the best land in  
this Kingdom.



I after pondered what the Merchant said, all the day and the next, and then began to imagine with my self, what a huge improvement I might make of my own estate, if these things were true which he had told me, and if God almighty pleased to permit me quietly to enjoy it.

And to be further satisfied, I sent to another dutchman in the Town that had been in *England*, with whom I was grown acquainted, and desired him to inform himself from some of the Boores in the Country, whether those things the Merchant had affirmed to me were true; he returned me an answer from three or four whom he said he knew to be honest men and understanding in those husbandries; that a gamme of flax, which was their acre, but somewhat more in quantity than ours, might well produce a score or fifty pounds worth of flax, if the land were well dunged and husbanded, and sowed with good east-Country seed, and that it pleased God to send convenient rain after it was sowed, and a reasonable time till harvest; these were no other conditions, than I conceived all other seed and grain to be subject to, either for to prove good or bad.

And for the other questions wherein I desired to be satisfied, concerning the Turneps and Clover and grass, he told me, they did concurr in all with for

the Merchant without any other condition or limitation.

The Winter after, I did examine divers persons upon like questions, which I thought did understand that business, and found very little difference in their relations.

And in April following, which was the chiefest time for sowing of flax and clovergrass-seed, I did often walk into the fields, a mile or more out of the Town, and expostulated the business with the Boores, when they were sowing of flax and clover-grass-seed, and afterwards observed that these things did prosper very well on such ground as I conceived to be extreme barren of its own nature.

But further to inform my self more fully what an acre of flax might be worth, I bought an English Rod of flax when it was grown up, neither the best nor worst, and caused it to be pulled, and watered, and dressed by it self, then valued it a few flax was sold the week following in the Market for eight Gaunt and the seed likewise; afterwards I cast and found what eight rod, which was an acre, would rise into according to that valuation, and I found that it came to 36 pounds 14 shillings 6 pence. And though by that rate an acre did not come all within forty pounds, yet it made me believe that an acre

acre of good flax might be worth forty pound and more; for that which I tried was but indifferent flax.

I went presently afterwards to *Antwerpe*, and saw almost every third or fourth field by the highway-side for 25 miles together stocked with goodly flax, far beyond that which I bought to make my tryall off, whereof some was pulled, and the rest was ready to pull.

The similitude of a great quantity of land I had in *England* unto theirs in *Flanders* and *Brabant* which I saw did bear their richest commodities, and my losse in *England* both of Personal and Real estate, made me enquire after all husbandries of those Countries, of such as I conceived could in any way instruct me that I might learn something or other whereby to repair my fortunes, if hereafter it pleased almighty God to give me leave to enjoy my own estate in peace again.

And being one day in company of some Merchants, it happened that discourse fell out about improvement of their barren ground, I said that I had a great quantity of barren and heathy land in *England* that I thought might easily be brought to bear flax, turneps, and clover-grass, as well as their barren lands did in *Flanders* and *Brabant*.

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To which a Merchant answered, that he would carry me to a man within three miles of *Antwerpe* who had taken a Farm upon improvement, which was just such Heathy Land as I described mine to be, for he was about five years since to have bought it, and when he saw it all Heath he would not meddle with it, but the Farmer had so improved it already, that he had now growing upon it a Nursery of twelve acres of all sorts of trees, as Pear-trees, Apple-trees, Cherry-trees, Ches-nut and Walnut-trees, Oaks, Ashes, Elms and the like, and he had there also growing both Flax, Turneps, and Clover-grass, Roman-beans, and most sorts of Corn, and he had planted a hop-ground and an Orchard, he said he would tell me what husbandry he used to make such a strange conversion, and that I could not please him better than to come see it and applaud his husbandry, and he did assure me that it was worth my Journey and to be informed from him, for never a man in that Country could better instruct me than he, and I will (said he) go thither with you when you please.

I thanked him very kindly for his offer, and told him I would wait upon him thither to morrow morning, it was agreed between us, and some others that were there said, they would wait of us both to see this wonder.

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But I asked him before we parted [what that taking a Farm upon improvement was which he before did speak of, he answered, that when another had bought the Land, this man offered more rent than he could make of it at that time, to have a Lease for twenty one years, upon condition, that whatsoever four indifferent persons, whereof two to be chosen by the one and two by the other, should judge the Farm to be improved above the rent, at the end of his lease the owner was to pay so much in value to the tenant for his improving of it.

I told him it was a way of letting land I never knew of before, he answered it was an ordinary way with them of letting such barren land as men could not tell how to manage themselves.

The next day we went thither, and the first thing we saw was his Nursery of trees which did grow and prosper very well, and he made account they would yield him ten thousand pounds before his lease was expired, and as I remember he valued them one with another but at two shillings a tree.

Then I saw a little close of Flax, which I esteemed to be about three English acres, of which Flax he told me the Merchant that brought me thither before I came from *Antwerpe*, that he had

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made one hundred and fifty pounds which was by computation fifty pound an acre.

I also saw growing there very good turneps, and excellent clovergrafs which he valued to be then worth 12 pounds an acre.

I after saw it cutting the first day of *June* one thousand six hundred fifty four being then two foot long and very thick, and went thither again the twenty ninth day of the same month, and saw the same grafs grown up, and then cutting again, being twenty inches long.

I saw it cutting again, in *August* following being then eighteen inches long, I viewed the grounds round about and found the skirts of the closes left unplowed, to be heath, and both he and the Merchant affirmed, all the rest where his flax, and clover-grafs grew, was heath but three years before.

I was very inquisitive of him to know what husbandry he used to the Land for to convert it from Heath, to bear such rich commodities.

He told me, first he broke it up with a strong Team of Horses, then plowed it cross afterwards tore of the Heath with a great Harrow, then gathered it up and burnt it, and laid about twenty loads of dung upon an acre, and spread it upon the land, then plowed it again, and sowed the

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first crop with Rye, the next with Oats, and when he had harrowed his oats, he sowed clover-grass-seed upon them, which he harrowed with a bundle of bushes, under his harrow, and that came after the oats was of, to be a very good pasture before Michaelmas, and this third year he had mowed the clover-grass thrice as I had seen, and it would come to a very good pasture quickly to feed till Christmas, and the same he thought he should do for three years more, but afterwards the ground would turn to an ordinary grass, he said he used his ground where his flax grew as his other, but first he gain about half the quantity of dung he did at first and then sowed it with flax, and upon the flax clover-grass-seed, as he had done before upon the oats: his Roman beans, his hops and orchard thrived very well, and all with the same quantity of dung proportionably used, for there they know no other Manure.

I asked him how he could make twelve pound of an acre of this clover-grass, He said either by feeding Cattel or keeping Kine, or laying it for seed, after the first cut, for an acre of it being made part into Hay, and the rest fed green, would keep four Kine Winter and Summer, and an acre laid for seed might carry five bushels, which valued at six pence a pound came to eight pound sterling

beside



besides the first and second cuts of grasse, and hay,  
and the after-pasture: He said the best time for sow-  
ing flax, and clover-grasse-seeds was about the be-  
ginning of *April* presently after a shower of rain,  
some continue sowing of flax untill the end of *May*,  
and some sow after, though I know no cause to  
commend their slowness in sowing of it so late.

I was not very inquisitive after his other Commo-  
dities, I saw by his Turneps which he sowed upon  
his Heathy Land at his first breaking up, that he  
differed in that point from all other Husbandmen  
in those Countries, who sowed them immediately  
after Rye, or Flax, but those things are left to e-  
very ones experience to proceed therein as he  
thinks best according to his own observation.

Now what I had observed here, and between  
*Antwerp* and *Antwerpe*, my reason told me (ground-  
ed upon some former experience) that there was  
no land that naturally bore Heath, being either of  
Sandy or Loamy mould, but might by devonshire-  
first, which I prefer before their husbandry  
in *Flanders*, whereunto adding some dung, or lime,  
made marle in fit proportion as shall be hereafter ex-  
posed, may be made better than the best land  
in *Flanders* or *England* doth afford, For no man  
with reason can deny, but that land is best which  
bringeth forth such commodities as will yield  
most

money to make one wealthy, and rich.

For though Wealth, and riches, may consist either in cattel, corn household-stuff, or plate, jewels yet when those things are valued, we commonly say they are worth so much money; So *Regina cunia*, money is the Queen that commands all.

Now if the same quantity of acres of poor Heathy land, by producing flax, turneps, and clover-grass will yield more money than the rich Land which beareth Wheat, Barley, Meadow, and good pasture; then by consequence it followeth that the poor land is better than the rich.

And I suppose that they find by experience in *Flanders*, that their rich Land will naturally bear those Commodities, otherwise they could not be ignorant that they do so far exceed their best Corn, and Meadows, in matter of profit, which appeareth clearly by their own valuations, for the value an acre of flax may be worth forty or fifty pounds, an acre of Turneps worth eight or ten pounds, an acre of clover-grass worth 10 or 12 pounds; whereas they value their best Barley may be worth ten or twelve pounds an acre, their best Wheat may be worth five or six pounds an acre, and their best Meadow worth four or five pounds an acre.

Now if you compare the value of these commodities

ities together, supposing the rich Land will not bear the other which are the richer commodities so well as the poor, you must needs conclude the Poorer Land to be the better.

And it is a strong argument to me, that their rich Land will not bear those rich commodities so naturally as the Heathy and Sandy Land doth, for though I went often between *Bridges* and *Dun-*  
*irk*, which is thirty nine miles being the richest Land in *Flanders*, and where there is goodly Wheat, Barley, and Meadows as ever my eyes beheld, yet I never saw in all that ground to my remembrance one acre of flax, turneps or clover-grass; whereas on the contrary between *Gaunt* and *Antwerpe* which is thirty miles, and the poorest Land in all the Country, much like *Sandy-Chapel* in *Surrey*, or some part of the Heathy Land in *Windsor* Forrest, I have seen many hundreds of acres of goodly flax, turneps, and clover-grass, close by the high-way side, and their corn there not any thing but Rye, French Wheat, and Oats.

It is not only dung that causeth the fertility in those barren Heathy and Sandy Lands for to bring forth those rich commodities, but partly the nature of those seeds which do delight to grow rather in a light and gentle Land, than in one too stiff and heavy, though it is true that dung is of that  
vertue

vertue, that it heats, fattens, sweetens and reclaimeth all barren grounds, and unslack't Lime and Marle are of as great an efficacy, being proportionably tempered with earth and ashes, and of longer continuance to enrich Land, as I will shew hereafter.

But because some will say that the burning of the turf, (which we call devonshireing,) will make the ground the worse after three years, I do more confidently affirm upon my own experience, that with the addition of dung, or lime, or marle, in fit proportions, that there is no such husbandry in the world perfectly to prepare any Heathy land and make it nourish, receive, and ripen seeds.

For the earth is as it were renewed by the husbandry having no other roots in the entrails of it, producing ceth nothing for many years but what one sows upon it, and shall remain vigorous enough to serve as long as one of knowledge and understanding will desire it.

And therefore I shall advise you to prefer husbandry upon your Heathy land before any other, though they have no other manner to manure their land but dung, in the barren and heathy lands in *Flanders & Brabant*, yet they have a very fine way in *Brabant* to raise a great quantity of dung, the practice whereof may much advance the improvement

claimment of *St. Leonards Forreſt*: They that keep ſheep  
 Mar there upon the Heaths, houze them every night,  
 onable and in the ſummer at noon, firſt having laid three  
 er con or four inches of ſand at the bottom of the floor  
 herea whereon they lodge their ſheep for a night or two,  
 which tread their dung and piſſe into the ſand,  
 ing and ſo dayly they uſe more ſand to be uſed in the  
 ll ma ſame manner, untill the quantity be grown ſo  
 lo mo great, that the ſheep cannot conveniently go in or  
 ce, th out.

mar Then they caſt that out of the houſe, and put in  
 band more ſand, and ſo proceed throughout the year,  
 y la and by this means three or four hundred ſheep will  
 ſ. riſe a thouſand loads of dung in a year, and eight  
 the ſ hundred ſheep, two thouſand loads, which allow-  
 prod ing twenty loads to an acre, will dung an hundred  
 e ſo acres yearly, and this dung by experience doth  
 o ſer nightily improve ſuch Heathy land as *St. Leo-*  
*lands* is.

Befides there is marle in moſt parts of the for-  
 fer theſis, I account any Mine that is free from ſtones,  
 any and lyeth ſo thick as it is worth the digging, and  
 o me ear and convenient to carry to your land, and of a  
 y la ammy ſubſtance when it is wet, though it ſeem  
 ne wly Clay, or Loam, yet to be Marle, and very good  
 ng, ſanure for ſandy and heathy land, be it of what  
 apro colour it will, as either gray, yellow, or blue, and

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forty

forty loads of it laid upon an acre in summer and presently spread, and so let lie all winter, to incorporate with the earth, then devonshired the next March, and spread upon the Land and sowed will mightily improve it.

I did use six acres thus, that was nothing but heath, and had two crops of Corn from it and the third year it came of it self to be as good grasse as ever I saw grow in any Meadow in England.

I saw another great improvement in Clement Stokes his Farm adjoining to the Forrest, he had Land that he let out two years together for twelvpence an acre, at last he devonshired it, and called his hills before they were burnt to be set just rod square one from another, and when they were burnt, he put a peck of unslacked lime into every Hill, which being eightscore Hills upon an acre took up just a load of lime which was forty bushels, this lime being slacked in the Hill with the first rain was mingled together with the ashes, and then spread upon the land, and afterwards sowed with wheat, and brought as good as any was in the Country, brought next year a very good crop of Oats, and the year following came to as good Grasse as any he had to his Farm.

This I hold to be the cheapeſt husbandry, because ſour or five load of Fernes of which there is ſtore, in the Forreſt being cut from the beginning of *July* to the middle of *Auguſt*, will burn off twelve loads of chalk to lime, and though your chalk coſt dear the bringing thither, yet the lime will not ſtand you in twelve ſhillings a load, and by this way you ſave much carriage, and ſo by conſequence may compaſs to Manure yearly much more Land.

As for example, you carry but one load of lime to your land, whereas by the other waies you muſt carry twenty loads of dung, and forty loads of Marle; ſo as by the lime, if that will do as well, you may lime twenty acres as ſoon as you can dung one acre, and forty acres for one with Marle.

But I adviſe you to make triall your ſelves of all theſe ſeverall husbandries, and then to follow that which you find cheapeſt and beſt. I have ſet down at large how I came firſt to know theſe husbandries, and how I was ſatiſfied in the partiuculars.

I have alſo ſet down three ſeverall waies to improve your land, now I will lay down the charge of each in ſeveralty, then caſt up the profit from one acre to five and twenty acres, then to fifty, and



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So to an hundred acres, by which it shall appear that by an ordinary way of husbandry according to the value which they make of like commodities in *Flanders*, how that by improving a hundred acres of Heathy land every year, as namely of *St. Leonards Forreſt*, and ſowing the ſeeds of Flax, Turneps, and Clover-graſs; you may in ſix years improve five hundred acres to be worth above ſeven thouſand pounds a year, the particular Charge of an acre of Flax is as followeth.

*First the dewonſhireing of an acre* 1. l.

*A Load of Lime to put into the Hills* 12 s.

*The Plowing and Harrowing of an acre* 6 s.

*Three buſhels of Flax-ſeed at 13 s. 4 d. the buſhel* 2 l.

*The Weeding of an acre* 1 s.

*Pulling and Binding an acre* 10 s.

*Graſſing the ſeed from the Flax* 6 s.

*Watering, Drying, ſwingling, and Beating the Flax of 9 hundred Weight upon an acre* 4 l. 10 s.

*This is the uttermoſt charge that I could learn*  
*So the whole cometh to* 9 l. 5 s.

*Nine hundred pound Weight of flax upon an acre, at 8 ſtivers the pound, which was an ordinary price in Gaunt when I was there, together with the ſeed valued to be worth* 40 l.

Now if you deduct 15 s. an acre more towards charges, or losses the accompt being already 10 l. an acre, short of the value of their best flax, yet remains above all charges clear for an acre 750 l.

By the same account you will be at 500 l. charge for 50 acres, and then receive at 40 l. an acre 2000, yet clear above all charges but 1500 l.

The like accompt of 1000 l. charge for 100 acres, you receive upon the accompt of 40 l. an acre 4000 l. yet clear above all charges 3000 l.

This thousand pound charge for 100 acres is only supposed in case you lay out all the charge before you receive any money for part of your flax, but before you are out 700 l. some money will come in for flax continually, so as indeed you shall not go out above seven hundred pound all in stock, and after the first years profit is come in, you cannot accompt that you are out anything from your purse, because you have your full stock again, and three thousand pound more.

But this is not all the profit you are to expect from your hundred acres the first year, for after flax is pulled which will be either in July or August, the same land may be sowed with turneps or prove according to the Flanders accompt worth at pound an acre over and above all charges, so twenty five acres cometh to two hundred pounds,

fifty

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fifty acres to four hundred pounds and a hundred acres to eight hundred pounds.

They sow in *Flanders* but two pound and a half of Turnep-seed upon an acre, which was wont when I was there, but twelve pence, and plow once after the flax is pulled, they harrow it, and weed it if there be cause, and that is all the charge concerning that business.

Both these crops are sowed, ripe and ready to be pulled within eight months; that is between the beginning of *April* and the end of *November* so the profit of one hundred acres the first year cometh to besides all charges and this account up to 3800 l.

And the hundred pounds allowed for charge may very well come into your purse again within the other four months.

When the turneps are pulled I would have the same hundred acres made ready again to be sowed with Clover-grass-seed alone, about the beginning of *April* then next following (therein altering the custom of *Brabant* and *Flanders*, which is to sow it immediately either with or after corn, for I have found by experience in *Herefordshire*, that it will thrive much better the first year and turn to more profit alone, than a crop of Oats, and it sowed together will do.

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The charge of an acre is first plowing and harrowing about 5 s.

Ten pound of seed as it cost me at Antwerpe 1645 but 6 d. a pound 5 s.

Cutting the grass twice making the Hay and threshing out the seed about 1 l. 10 s.

So the whole charge is 2 l.

## The second years Profit.

Which being deducted, there remains cleer for one acre according to the Brabant and Flanders accompt 10 l. which for 25 acres cometh to 250 l. for 50 acres to 500 l. and for 100 acres to 1000 l. Then 100 acres more must be dewonshired, and sowed with flax, and turneps as is before expressed which with Gods Blessing may yield the like profit 3800 l. whereto the 100 l. abovementioned for clover-grass being added, the whole profit of the second years from 200 acres amounteth to 4800 l.

## The third years Profit.

Then the last 100 acres sowed with flax, and turneps, must be sowed as before with clover-grass-seed, which according to the former accompt coming to 1000 l. and 100 acres more dewonshired as formerly,

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merly, and sowed with flax and turneps yielding the like profit of 3800 l. as is before specified, adding thereunto the 200 acres of clover-grass; the whole profit of the third year is 5800 l.

**The fourth years Profit.**

That the 100 acres sowed before with flax, and turneps, must be sowed as formerly with clover-grass-seeds, which yielding 1000 l. according to the former accounts, and another hundred acres Devonshired as formerly and sowed with flax and turneps and yielding like profit of 3800 l. and adding thereunto the 300 acres formerly sowed with clover-grass-seed makes the whole profit of the fourth year 6800 l.

**The fifth years Profit.**

Then the last 100 acres sowed with flax and turneps must be sowed as before with clover-grass-seed, which yielding like profit of 1000 l. and another 100 acres Devonshired as formerly and sowed with flax and turneps, yielding the like profit 3800 l. thereto adding the 400 acres formerly sowed with clover-grass-seed, makes the whole profit of the fifth year 7800 l.

Thus have I plainly shewed what I promised in my Preface, that was, how an industrious man in *Brabant* and *Flanders* would convert 500 acres of barren and heathy Land from little value, in 5 years to be worth above 7000 *l.* a year.

You see you have better means to mend your Land than they have, your Land lieth in a manner under the same Climate, for *Chicester* and *Mecklin* are in one degree, the soil is much alike as I have shewed; you may have as good a vent for your commodities as they have for theirs, if you please, and therefore I do not know what reason can hinder you from putting these things in practice, you may continue this yearly profit of 7800 *l.* a year upon this 500 acres, if you will, by liming, dunging, or marling, and devonshireing: gain the first 100 acres laid down with clover-grass, and sowing it with flax and turneps, as before, and so go round with every hundred acres as formerly in its course, but having great store of barren and heathy ground, you were better improve that, and let the clover-grass continue as long as it will.

And if after 5 years continuance it turneth to a single grass, yet that will be as good as most meadows and pastures that I know in *England*, for it turns commonly from a red hony-suckle to a

E

white,

white, which we repute the sweetest grasse, although it doth not carry the greater burthen, and I am perswaded it will continue longer, if it be kept for seed, and cut but twice, whereas they commonly cut it thrice a year in *Flanders*, always in the Sap, which will kill Fern.

Now I will shew you how they vent those Commodities, that you may learn the better how to vent yours.

First they make great store of Linnen themselves, and sell it most for *London*; what they make not in Cloth they have a Market of every Thursday at a place called *S. Nicholas*, almost midway between *Antwerpe* and *Gaunt*, whither Merchant come of purpose to buy it, and send it into *Holland*, and there sell it at dear rates.

I met with a Linnen-Draper of *London* when he was at *Gaunt*, and questioning him what was there was for flax at *London*, he told me that before these troublesome times, if I had had a very great quantity he could have helpt me to chapman to have bought it off at dearer rates at *London*, than usually they sold it at in *Flanders*, for he said he did believe there was no less than 100000 *l.* worth of flax brought yearly into *England* from foreign parts, a great part whereof to his knowledge, was sent from *London* into *Lancashire*, there made into Cloth.



Cloth, and afterwards brought back in cloth and sold in *London*, and if times grew peaceable again in *England*, he told me I need not doubt the venting of more flax at *London* than ever I would have to sell. And two honest English Merchants of my acquaintance did assure me, that if I could not sell my flax at *London* to my content, they would transport it for me into *Holland*, where I might sell it dearer than they sold their flax in *Flanders*; for Merchants usually sent for flax out of *Flanders*, and sold it again in *Holland* at dearer rates than they paid for it there.

But if you find that these commodities thrive with you, & you grow rich by them, I would advise you to send for some workmen out of *Flanders*, that understand the Manufacture of linnen-cloth, and make your own flax in linnen-cloth, you cannot chuse but gain by it exceedingly, when you are aforehand with the world, if they live by it who fetch it first from *London* into *Lancashire* by land being made in cloth, recarry it up; and besides, you shall do a charitable deed, by bringing in that Manufacture into the Kingdom, for it keeps a very great number of poor women and children at work in *Flanders* and *Holland*, that otherwise would not have means to live; So by this way you should be sure to vent your flax, and withall procure

cure a publick benefit to the Kingdom.

The Husbandry of Turneps is as common betwene *Gauant* and *Antwerpe* as that of flax, for there is more flax sowed there, than of any other grain or corn, so commonly after the flax is pulled, immediately they sow Turneps, and presently after, their Rye, what they do not eat themselves they give unto their cattel, they will feed Oxen and Kine, as fat as Hay and Oats, the roots being clean washed, and then roots and leaves being put into a trough, and there stamped together with a spitter, and after boyled in water and given to Kine, will make them abound with milk, yet grow so fat withall, that you would wonder at it.

The only difficulty is to make your cattel eat them at first, but breed them up by hand, as they do there: others do the same already; in many parts in *England* they will take turneps and eat, or any other thing that you will give them.

To encourage you the more to sow turneps, I will demonstrate to you what an acre of them transplanted may be worth by calculation, as they are sold in *London*. They commonly there sell for three or five turneps in a bunch for a peny. A rod square being sixteen foot and a half may bear 1089 turneps, being set at half a foot distance the one from the other.

Now suppose that 1000 cometh to good, and five  
 sold for a peny; then a rod of them amounts to  
 6 s. 8 d. and an acre of them being eightscore rod  
 by the same account comes to above 30 l. and there-  
 fore certainly 100 acres sowed, may very well be  
 valued at 8 l. an acre one with another, when you  
 have brought your Cattel to eat them as theirs  
 Oxe do.

I told you before how in *Brabant* and *Flanders*  
 they made twelve pound an acre of their Clover-  
 grass, either by feeding Cattel, keeping Kine, or by  
 the seed, which commonly encreasing to 5 bushels  
 upon an acre, was worth 8 l. when it was sold but  
 6 d. a pound, but being sold for 2 s. a pound  
 (which price I my self now paid for it) the value  
 of the seed quadruples from 8 l. to 32 l. an acre,  
 and the man that sold me seed this year for 2 s.  
 a pound, desires to buy all that I can spare the next  
 year at the same price, if you get but into the best  
 kind of those they use in *Flanders*.

For when your neighbours see your labours  
 thrive and prosper, so far as to convert your land  
 which bore nothing but Heath for many ages, first  
 into excellent flax, then into such delicate tur-  
 squas as they never saw before, or tasted, and to  
 such Clover-grass, as they will admire,  
 when they once see your Crops, and somewhat un-  
 derstand

derstand that you do reap some benefit by them, they will come to you as to an Oracle to ask your Counsell, and be instructed, and desire it from you as a favour at first, to buy your seed at any reasonable price.

But if you find that you have more seed of flax and turneps, (if you will let them grow to seed) than you can vent, you must then set up either a Water-mill, or Wind-mill, as they do in *Flanders*, and make them into Oyl, both which seeds make good Oyl, which you may be sure to sell in *London* at good rates.

And for your Clover-grass-feed, if you find you cannot sell it to your content, you may choose whether you will let it grow to seed or not, and if you do not let it grow to seed, you may cut it once more in a year than otherwise you could do.

You must change your flax-feed, though never so good at first, after four years, the other seeds do not so much require it.

I doubt not but these things will seem as strange to you at first, as they did to me, and therefore I desire you nothing, but to try what I propose, upon such profitable terms, as no man that is well in his wits, but will venture at them, being laid down so plainly to you, as a child may understand them.

You may observe that flax, turneps, and clover

grafs already grow in *England*, but there is a much difference between what groweth there and here, as is between the same thing which groweth in a garden, and that which groweth wild in the fields.

To prevent what may be strange or troublesome to you at first, for want of knowledge, I would advise you to send to *Tom* or *Robin* to *Gaunt*, where, by means of some of their old acquaintance there, they may provide you a servant who understands these severall Husbandries, as well as any of ours do the Husbandry in getting Corn, and by observing of his practice, you your selves, or whom you will appoint, may be sufficiently instructed in a year or two; so far as to command such things to be done by others, as are not fit and necessary to be done by you your selves.

Besides the excessive profit you will reap by sowing those Commodities, imagine what a pleasure it will be to your eyes and scent, to see the *Russet Heath* turned into *Greenest Grasse*, which doth produce most sweet and pleasant smelling *Hony-suckles*, and what praise and reputation you will gain by your examples, first introducing that into your Country, which being followed by others, must needs redound unto the generall benefit of the whole Kingdom.

I do

I do by my Will Command you for to execute no more, than what I would my self to morrow put in practice if I had liberty.

You should then learn these things I have set down by examples, which now I am enforced to leave you as a Fathers Precepts, and with a Fathers blessing to you all, desiring God Almighty for to guide you, and direct you in all your Actions, I will leave you to His Divine Protection and Providence.

### To make Rushie Ground bear Grass.

**B**reak the Rushie ground, and rake the root and the Rushes together, and burn them or carry them away, then spread upon that Ground turpashes, or pigeon dung, chalk, or lime, according to your ground; try of every one of these upon a little plot of your ground, you may use others, shes, marle, or dung for experiences; and that which you find doth kill the Rushes and the other Weeds best, use it: you are to make gutters, or

drays

drayns to carry away the water from the ground, you may destroy Rushes, or Fern, if you will but cut, and mow them down, in the beginning of June, and so use to do it two or three years in June.

### For Planting and Sowing walnuts.

In the season when they are full ripe, on the trees, a few days before they will fall, as near as can be guessed, let them be gathered or beaten of, and in the green husk, or without it, put them into good ordinary earth, in a barrel, or basket: so let them continue untill the beginning of March following; as soon as that month begins, get as much warm milk from the Cows, as will steep them, twenty four hours after they are steeped, set them in ground well digged, and judged naturall for such fruit, with their little end, or their prickled sharp end upwards about three or four inches deep in the earth, and not one of twenty will fail, as hath appeared by experience.

This may make dry Walnuts also prove trees. The Nuts used as abovesaid, as far as may be: Set them neer one foot asunder, and in a right line, to weed them, the Walnut breeds good timber,

F

good



34 **Directions for Improvement, &c**

good shadow, good smell, good fruit. At four years growth transplant them.

*Note that Clover-grass-feed will be ripe about a Month after it appears in the husk.*

**FINIS**

In the season when they are full ripe, on the  
tree a few days before they will fall, as near as  
can be guessed, let them be gathered or beaten off,  
and in the green husk, or without it, put them in  
a most ordinary earthen in a barrel, or basket:  
to let them come to the beginning of decay  
following; also as that month begins, put as  
much warm milk from the Cow as will keep them  
twenty four hours after they are heated, let them  
in ground well digged, and ridged natural for  
such fruit, with their husks, or their prickled  
sharp end upwards about three or four in-  
ches deep in the earth, and not one of twenty  
will fall, as hath appeared by experience.  
This may make dry Walnuts also prove trees.  
The Nuts used as above said, as far as may be, let  
them near one foot slender, and in a right line,  
to weed them, the Walnut breeds good timber  
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